

Claims:

1. An air cleaner, comprising:

a cylindrical body 110 fixed to a bottom circular disc 111 wherein an entire appearance of the same is formed of a grill part 112;

5 a filter unit 120 including a non-woven fabric filter 122 provided in an inner side of the grill part of the cylindrical body, and a cylindrical filter cartridge 121 having a cylindrical wrinkle filter 121a in an inner side;

an air inlet guide 130 installed in the interior of the filter unit and having an air inlet part 131 in a lower side wherein an upper side of the same is wide,
10 and a lower side of the same is narrow like a reverse conical shape;

an air supply unit assembly 140 including a support circular disc 141 having an air hole 141a and a protrusion part 141b at a center for covering the upper sides of the cylindrical body, the filter unit and the air inlet guide, a motor 142 fixed to the protrusion part of the support circular disc, a fan 143 fixed to a
15 rotary axis 142a of the motor, and a fan housing 144 having an air discharge hole 144a formed along a rim of an upper side surface, while surrounding the fan 143;

a top housing 150 assembled to an upper side surface of the air supply unit assembly and having a controller 153 with an operation knob 152 in an
20 upper side surface, and a handle 154 wherein a rotation discharge guide part 151 corresponding to the air discharge hole 144a is formed along the rim; and

an electronic circuit substrate 200 provided between an upper side of

the air supply unit assembly and a lower surface of the top housing.

2. The cleaner of claim 1, wherein said air supply unit assembly 140 includes a plurality of electric heaters 160 in an inner side of the air discharge
5 hole 144a.

3. The cleaner of claim 1, wherein said air supply unit assembly 140 includes a sensor cover part 145 extended in a lower direction of one side wherein a dust density detection sensor 170 is provided in the interior of the
10 sensor cover part.

4. The cleaner of claim 1, wherein in said air supply unit assembly 140, a sensor hole 144b is formed in one side of the fan housing 144, and a gas density detection sensor 180 and a temperature detection sensor 190 are
15 provided in the inner side of the fan housing.

5. The cleaner of claim 1, wherein said air supply unit assembly 140 includes an air guide member 146 capable of guiding the air flowing from the air hole 141a to the air discharge hole 144a in the upper direction, not the bottom.
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6. The cleaner of claim 1, wherein said air supply unit assembly 140 includes a ultraviolet ray sterilizer 220 having a pair of ultraviolet rat lamps 221

on the bottom of the support circular disc 141.

7. The cleaner of claim 1, wherein said air inlet part 131 of the air inlet guide 130 comprises a radial wing part 132 for guiding the flow of air to
5 turbulence flow.

8. The cleaner of claim 1, wherein said filter cartridge 121 of the filter unit comprises a wrinkle filter 121a, and a carbon filter 121b being adherent to the inner surface of the wrinkle filter 121a.

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9. The cleaner of claim 1, wherein said filter cartridge 121 of the filter unit 120 includes a wrinkle filter 121a, a carbon filter 121b being adherent to the inner surface of the wrinkle filter 121a, and a nano silver filter 121c being adherent to the inner surface of the carbon filter 121b.

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10. The cleaner of claim 1, wherein said top housing 150 includes an ion generator 210 therein, wherein a discharge hose 211 connected with the ion generator is exposed from one side of the controller 153 to the outside.

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